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**For:** Universal Asset Class Benchmarking  
System, Process and Product

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**GROUP 3600**

**Boston, Massachusetts**  
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## **Document A: Claims as amended.**

**WHAT IS CLAIMED IS:**

1. (withdrawn): An asset class benchmarking system comprising:
  - (a) means for selecting portfolio data from publicized source information;
  - (b) means for selecting asset class data from publicized source information;
  - (c) means for selecting portfolio tracking data from publicized source information; and
  - (d) means for summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data.
2. (withdrawn): The asset class benchmarking system of claim 1, wherein said portfolio data comprises data level fields and security level fields, said data level fields including a portfolio field and a date field, said security level field including a CUSIP field and a par amount field.
3. (withdrawn): The asset class benchmarking system of claim 1, wherein said asset class data are matched with said portfolio data.
4. (withdrawn): The asset class benchmarking system of claim 1, wherein said portfolio tracking data including management expenses and distribution charges.
5. (withdrawn): An asset class benchmarking system comprising:
  - (a) means for selecting portfolio data from publicized source information;
  - (b) means for selecting asset class data from publicized source information;
  - (c) means for selecting portfolio tracking data from publicized

source information; and

(d) means for summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data;

(e) said portfolio data comprising data level fields and security level fields, said data level fields including a portfolio field and a date field, said security level field including a CUSIP field and a par amount field;

(f) said asset class data being matched with said portfolio data;

(g) said portfolio tracking data including management expenses and distribution charges.

6. (withdrawn): An asset class benchmarking system comprising: (a) means for selecting portfolio data from publicized source information; (b) means for selecting asset class data from publicized source information; (c) means for selecting portfolio tracking data from publicized source information; (d) means for summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data; (e) said portfolio data comprising data level fields and security level fields, said data level fields including a portfolio field and a date field, said security level field including a CUSIP field and a par amount field; (f) said asset class data being matched with said portfolio data; (g) said portfolio tracking data including management expenses and distribution charges; and (h) means for weighting said benchmark data.

7. (withdrawn): The asset class benchmarking system of claim 6, wherein said means for weighting said benchmark data comprises:

- (a)** for each of the securities in said portfolio data, means for combining the CUSIP and par amount data with pricing data;
- (b)** for each of the securities in said benchmark data, means for calculating the estimated total market value for said securities pursuant to the following:

$$PMV = \sum_{i=1}^N Par_i * Price_i$$

, where N = the number of securities in that portfolio/fund, and PMV = the portfolio/fund market value;

- (c)** means for summing up all the PMVs pursuant to the following,

$$TBMV = \sum_{j=1}^J PMV^j$$

, where J = the number of portfolios/funds in the benchmark (in this case 18), and TBMV = total benchmark market value;

- (d)** means for creating a scaling factor in order to equally weight the equities by taking the reciprocal of the weight of each equity pursuant to the following,

$$SF^j = 1 / (PMV^j / TBMV)$$

, where

$$SF^j$$

= the scaling factor for the jth portfolio/fund;

- (e)** means for adjusting the scaling factor so that the sum of the scaling factors equal unity pursuant to the following,

$$ASF^j = SF^j / \sum_{j=1}^J SF^j$$

, where

$$ASF^j$$

= the adjusted scaling factor for the jth portfolio/fund as follows,

$$\sum_{j=1}^J ASF^j = 1$$

(f) means for adjusting the securities in the benchmark so that preselected groups of said securities receive equal weights by multiplying each security in each of said preselected groups by its appropriate adjusted scaling factor as follows,

$$AMV_i^j = MV_i^j * ASF^j$$

, where

$$AMV_i^j$$

= the adjusted market value of security i in portfolio/fund j, and

(g) based on said means of paragraph (f) directly hereinabove, means for creating an adjusted weight for each security in each portfolio/fund in the benchmark:

$$x_i^j = AMV_i^j / (\sum_{i=1}^N AMV_i^j * J)$$

, where

$$x_i^j$$

= the weight of the ith security in the jth portfolio/fund, and

$$\sum_{i=1}^N x_i^j = 1 / J$$

(by construction).

8. (canceled): An asset class benchmarking process comprising:

(a) selecting portfolio data from publicized source information;

(b) selecting asset class data from publicized source information;

(c) selecting portfolio tracking data from publicized source information; and

(d) summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data.

9. (canceled): The asset class benchmarking process of claim 8, wherein said portfolio data comprises data level fields and security level fields, said data level fields including a portfolio field and a date field, said security level field including a CUSIP field and a par amount field.
10. (canceled): The asset class benchmarking process of claim 8, wherein said asset class data are matched with said portfolio data.
11. (canceled): The asset class benchmarking process of claim 8, wherein said portfolio tracking data including management expenses and distribution charges.
12. (canceled): An asset class benchmarking process comprising:
  - (a) selecting portfolio data from publicized source information;
  - (b) selecting asset class data from publicized source information;
  - (c) selecting portfolio tracking data from publicized source information; and
  - (d) summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data;
  - (e) said portfolio data comprising data level fields and security level fields, said data level fields including a portfolio field and a date field, said security level field including a CUSIP field and a par amount field;
  - (f) said asset class data being matched with said portfolio data;
  - (g) said portfolio tracking data including management expenses and distribution charges.

13. (canceled): An asset class benchmarking process comprising: (a) selecting portfolio data from publicized source information; (b) selecting asset class data from publicized source information; (c) selecting portfolio tracking data from publicized source information; (d) summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data; (e) said portfolio data comprising data level fields and security level fields, said data level fields including a portfolio field and a date field, (f) said security level field including a CUSIP field and a par amount field; (g) said asset class data being matched with said portfolio data; (h) said portfolio tracking data including management expenses and distribution charges; and (i) weighting said benchmark data.

14. (currently amended): An asset class benchmarking process comprising: (a) selecting portfolio data from publicized source information; (b) selecting asset class data from publicized source information; (c) selecting portfolio tracking data from publicized source information; (d) summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data; (e) said portfolio data comprising data level fields and security level fields, said data level fields including a portfolio field and a date field, (f) said security level field including a CUSIP field and a par amount field; (g) said asset class data being matched with said portfolio data; (h) said portfolio tracking data including management expenses and distribution charges; and (i) weighting said benchmark data. ~~The asset class benchmarking process of claim 13, wherein in said process, said weighting of said benchmark data comprises:~~

**(Step I)** for each of the securities in said portfolio data, combining the CUSIP and par amount data with pricing data;

**(Step II)** for each of the securities in said benchmark data, calculating the

$$PMV = \sum_{i=1}^N Par_i * Price_i$$

estimated total market value for said securities pursuant to the following:

, where N = the number of securities in that portfolio/fund, and PMV = the portfolio/fund market value;

**(Step III)** summing up all the PMVs pursuant to the following,

$$TBMV = \sum_{j=1}^J PMV^j$$

, where J = the number of portfolios/funds in the benchmark, and TBMV = total benchmark market value;

**(Step IV)** creating a scaling factor in order to equally weight the equities by taking the reciprocal of the weight of each equity pursuant to the following,

$$SF^j = 1 / (PMV^j / TBMV)$$

, where

$$SF^j$$

= the scaling factor for the jth portfolio/fund;

**(Step V)** adjusting the scaling factor so that the sum of the scaling factors equal unity pursuant to the following,

$$ASF^j = SF^j / \sum_{j=1}^J SF^j$$

, where

$$ASF^j$$

= the adjusted scaling factor for the jth portfolio/fund as follows,

$$\sum_{j=1}^J ASF^j = 1$$

**(Step VI)** adjusting the securities in the benchmark so that preselected groups of said securities receive equal weights by multiplying each security in each of said preselected groups by its appropriate adjusted scaling factor as follows,

$$AMV_i^j = MV_i^j * ASF^j$$

, where

$$AMV_i^j$$

= the adjusted market value of security i in portfolio/fund j, and

**(Step VII)** based on said **Step VI** directly hereinabove, creating an adjusted weight for each security in each portfolio/fund in the benchmark:

$$x_i^j = AMV_i^j / (\sum_{i=1}^j \sum_{i=1}^N AMV_i^j * J)$$

, where

$$x_i^j$$

= the weight of the ith security in the jth portfolio/fund, and

$$\sum_{i=1}^j \sum_{i=1}^N x_i^j = 1 / J$$

(by construction).

15. (withdrawn): An asset class benchmarked security produced by a process comprising: (a) selecting portfolio data from publicized source information; (b) selecting asset class data from publicized source information; (c) selecting portfolio tracking data from publicized source information; (d) summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data; (d) said portfolio data comprising data level fields and security level fields, said data level fields including a portfolio field and a date field, (e) said security level field including a CUSIP

field and a par amount field; (f) said asset class data being matched with said portfolio data; (g) said portfolio tracking data including management expenses and distribution charges; and (h) weighting said benchmark data.

16. (withdrawn): The asset class benchmarked security of claim 15, wherein said weighting of said benchmark data comprises:

**(Step I)** for each of the securities in said portfolio data, combining the CUSIP and par amount data with pricing data;

**(Step II)** for each of the securities in said benchmark data, calculating the estimated total market value for said securities pursuant to the following:

$$PMV = \sum_{i=1}^N Par_i * Price_i$$

, where N = the number of securities in that portfolio/fund, and PMV = the portfolio/fund market value;

**(Step III)** summing up all the PMVs pursuant to the following,

$$TBMV = \sum_{j=1}^J PMV^j$$

, where J = the number of portfolios/funds in the benchmark, and TBMV = total benchmark market value;

**(Step IV)** creating a scaling factor in order to equally weight the equities by taking the reciprocal of the weight of each equity pursuant to the following,

$$SF^j = 1 / (PMV^j / TBMV)$$

, where

$$SF^j$$

= the scaling factor for the jth portfolio/fund;

**(Step V)** adjusting the scaling factor so that the sum of the scaling factors equal unity pursuant to the following,

$$ASF^j = SF^j / \sum_{j=1}^J SF^j$$

, where

$$ASF^j$$

= the adjusted scaling factor for the jth portfolio/fund as follows,

$$\sum_{j=1}^J ASF^j = 1$$

**(Step VI)** adjusting the securities in the benchmark so that preselected groups of said securities receive equal weights by multiplying each security in each of said preselected groups by its appropriate adjusted scaling factor as follows,

$$AMV_i^j = MV_i^j * ASF^j$$

, where

$$AMV_i^j$$

= the adjusted market value of security i in portfolio/fund j, and

**(Step VII)** based on said **Step VI** directly hereinabove, creating an adjusted weight for each security in each portfolio/fund in the benchmark:

$$x_i^j = AMV_i^j / (\sum_{i=1}^j \sum_{i=1}^N AMV_i^j * J)$$

, where

$$x_i^j$$

= the weight of the ith security in the jth portfolio/fund, and

$$\sum_{i=1}^j \sum_{i=1}^N x_i^j = 1 / J$$

(by construction).

17. (withdrawn): An asset class benchmarking system comprising: (a) means for selecting portfolio data from first publicized source information; (b) means for selecting asset class data from second publicized source information; (c) means for selecting

portfolio tracking data from third publicized source information; (d) means for summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data; (e) said portfolio data comprising data level fields and security level fields, said data level fields including a portfolio field and a date field, said security level field including a CUSIP field and a par amount field; (f) said asset class data being matched with said portfolio data; (g) said portfolio tracking data including management expenses and distribution charges; (h) means for weighting said benchmark data, and (i) means for periodically rebalancing said benchmark data by repeating the application of means (a) through (h), (j) said portfolio data being derived from publicized filings at the Securities and Exchange Commission (“SEC”) or the equivalent filings in countries other than the United States, or publicized actual periodic official reports involving said portfolio data, or publicized lists of the contents of said portfolio data by the entities involved therewith, (h) said asset class data being derived from descriptions of said portfolio data or sector codes related thereto, and (i) said portfolio tracking data being derived from publicized financial performance and expense data related to said portfolio data.

18. (canceled): An asset class benchmarking process comprising: (a) selecting portfolio data from first publicized source information; (b) selecting asset class data from second publicized source information; (c) selecting portfolio tracking data from third publicized source information; (d) means for summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data; (e) said portfolio data comprising data level fields and security level fields, said data level fields including a portfolio field and a date field, said security level field including a CUSIP field and a par

amount field; (f) said asset class data being matched with said portfolio data; (g) said portfolio tracking data including management expenses and distribution charges; (h) weighting said benchmark data, and (i) periodically rebalancing said benchmark data by repeating the application of (a) through (h) above, (j) said portfolio data being derived from publicized filings at the Securities and Exchange Commission (“SEC”) or the equivalent filings in countries other than the United States, or publicized actual periodic official reports involving said portfolio data, or publicized lists of the contents of said portfolio data by the entities involved therewith, (h) said asset class data being derived from descriptions of said portfolio data or sector codes related thereto, and (i) said portfolio tracking data being derived from publicized financial performance and expense data related to said portfolio data.

19. (withdrawn): An asset class benchmarked security product produced by a process comprising: (a) selecting portfolio data from first publicized source information; (b) selecting asset class data from second publicized source information; (c) selecting portfolio tracking data from third publicized source information; (d) means for summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data; (e) said portfolio data comprising data level fields and security level fields, said data level fields including a portfolio field and a date field, said security level field including a CUSIP field and a par amount field; (f) said asset class data being matched with said portfolio data; (g) said portfolio tracking data including management expenses and distribution charges; (h) weighting said benchmark data, and (i) periodically rebalancing said benchmark data by repeating the application of (a) through (h) above, (j) said portfolio data being derived from publicized filings at the Securities

and Exchange Commission (“SEC”) or the equivalent filings in countries other than the United States, or publicized actual periodic official reports involving said portfolio data, or publicized lists of the contents of said portfolio data by the entities involved therewith, (h) said asset class data being derived from descriptions of said portfolio data or sector codes related thereto, and (i) said portfolio tracking data being derived from publicized financial performance and expense data related to said portfolio data.

20. (withdrawn): An asset class benchmarked security product produced by a process comprising: (a) selecting portfolio data from first publicized source information; (b) selecting asset class data from second publicized source information; (c) selecting portfolio tracking data from third publicized source information; (d) means for summing said portfolio data, said asset class data and said portfolio tracking data to produce benchmark data; (e) said portfolio data comprising data level fields and security level fields, said data level fields including a portfolio field and a date field, said security level field including a CUSIP field and a par amount field; (f) said asset class data being matched with said portfolio data; (g) said portfolio tracking data including management expenses and distribution charges; (h) weighting said benchmark data, and (i) periodically rebalancing said benchmark data by repeating the application of (a) through (h) above, (j) said portfolio data being derived from publicized filings at the Securities and Exchange Commission (“SEC”) or the equivalent filings in countries other than the United States, or publicized actual periodic official reports involving said portfolio data, or publicized lists of the contents of said portfolio data by the entities involved therewith, (h) said asset class data being derived from descriptions of said portfolio data or sector codes related thereto, and (i) said portfolio tracking data being derived from publicized

financial performance and expense data related to said portfolio data, and (k) weighting of benchmark data by the following steps:

(Step I) for each of the securities in said portfolio data, combining the CUSIP and par amount data with pricing data;

(Step II) for each of the securities in said benchmark data, calculating the

$$PMV = \sum_{i=1}^N Par_i * Price_i$$

estimated total market value for said securities pursuant to the following:

, where N = the number of securities in that portfolio/fund, and PMV = the portfolio/fund market value;

(Step III) summing up all the PMVs pursuant to the following,

$$TBMV = \sum_{j=1}^J PMV^j$$

, where J = the number of portfolios/funds in the benchmark, and TBMV = total benchmark market value;

(Step IV) creating a scaling factor in order to equally weight the equities by taking the reciprocal of the weight of each equity pursuant to the following,

$$SF^j = 1 / (PMV^j / TBMV)$$

, where

$$SF^j$$

= the scaling factor for the jth portfolio/fund;

(Step V) adjusting the scaling factor so that the sum of the scaling factors equal unity pursuant to the following,

$$ASF^j = SF^j / \sum_{j=1}^J SF^j$$

, where

$$ASF^j$$

= the adjusted scaling factor for the jth portfolio/fund as follows,

$$\sum_{j=1}^J ASF^j = 1$$

**(Step VI)** adjusting the securities in the benchmark so that preselected groups of said securities receive equal weights by multiplying each security in each of said preselected groups by its appropriate adjusted scaling factor as follows,

$$AMV_i^j = MV_i^j * ASF^j$$

, where

$$AMV_i^j$$

= the adjusted market value of security i in portfolio/fund j, and

**(Step VII)** based on said **Step VI** directly hereinabove, creating an adjusted weight for each security in each portfolio/fund in the benchmark:

$$x_i^j = AMV_i^j / (\sum_{i=1}^N \sum_{j=1}^J AMV_i^j * J)$$

, where

$$x_i^j$$

= the weight of the ith security in the jth portfolio/fund, and

$$\sum_{i=1}^N \sum_{j=1}^J x_i^j = 1 / J$$

(by construction).